

# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION

July 27, 2017

Danielle A. Larochelle Regulatory Manager Nufarm Americas Inc. 11901 S. Austin Avenue Alsip, IL 60803

Subject: Notification per PRN 98-10 – Adding minor changes to label language.

Product Name: Methyl 4.5 F Fungicide EPA Registration Number: 228-652 Application Date: 06/29/2017

Decision Number: 531229

#### Dear Ms Larochelle:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, you may contact Gene Kaudy at 703-347-0585 or via email at <u>kaudy.gene@epa.gov</u>.

Shaja B. Joyner, Product Manager 20

Fungicide-Herbicide Branch Registration Division 7505P

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# Nufarm T-Methyl 4.5 F Fungicide

#### **ACTIVE INGREDIENT:**

Thiophanate-methyl (Dimethyl [(1,2-phenylene)bis(iminocarbonothioyl)]bis[carbamate])*	46.2%
OTHER INGREDIENTS:	53.8%
TOTAL:	100.0%

<sup>\*</sup>Also known as Dimethyl 4,4'-o-phenylenebis(3-thioallophanate) Contains 4.5 pounds thiophanate-methyl per gallon

# CAUTION / PRECAUCIÓN

See inside label booklet for FIRST AID and PRECAUTIONARY STATEMENTS

For Chemical Spill, Leak, Fire, or Exposure, Call CHEMTREC (800) 424-9300 For Medical Emergencies Only, Call (877) 325-1840

EPA REG. NO. 228-652 EPA EST. NO. \_\_\_\_\_ MANUFACTURED FOR NUFARM AMERICAS INC. 150 HARVESTER DRIVE11901 S. AUSTIN AVENUE BURR RIDGE, IL 60527 ALSIP, IL 60803



**Net Contents:** 

[Optional Marketing Tagline: Grow a better tomorrow.]

NOTIFICATION

228-652

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

07/27/2017

If swallowed:  Call a poison control center or doctor immediately for treatment advice.  Have person sip a glass of water if able to swallow.  Do not induce vomiting unless told to do so by a poison control center or doctor.  Do not give anything by mouth to an unconscious person.  If inhaled:  Move person to fresh air.  If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.  Call a poison control center or doctor for further treatment advice.  If on skin or clothing:  Rinse skin immediately with plenty of water for 15-20 minutes.  Call a poison control center or doctor for treatment advice.  If in eyes:  Hold eye open and rinse slowly and gently with water for 15-20 minutes.  Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.		FIRST AID
<ul> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>Call a poison control center or doctor for further treatment advice.</li> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>	If swallowed:	<ul> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to do so by a poison control center or doctor.</li> </ul>
clothing:  Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.  Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.	If inhaled:	• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.		Rinse skin immediately with plenty of water for 15-20 minutes.
Call a poison control center or doctor for treatment advice.	If in eyes:	Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.

#### **HOTLINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-877-325-1840 for emergency medical treatment information.

# PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

## **CAUTION / PRECAUCIÓN**

Harmful if swallowed, inhaled or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Avoid breathing vapor or spray mist.

#### **Personal Protective Equipment (PPE)**

Some materials that are chemical-resistant to this product are barrier laminate, butyl rubber ≥ 14 mils, nitrile rubber ≥ 14 mils, polyvinyl chloride (PVC) ≥ 14 mils, and viton ≥ 14 mils. If you want more options, follow the instructions for category C on an EPA chemical-resistance category selection chart.

Handlers mixing, loading and applying the product as a dip (including application of product in Kaolinite clay to conifer seedling roots) must wear:

- Coveralls over long-sleeved shirt and long pants,
- Chemical-resistant gloves,
- Chemical-resistant footwear plus socks.
- Chemical-resistant apron

## All other mixers and loaders and applicators must wear:

- Long-sleeved shirt and long pants,
- Shoes plus socks,
- Chemical-resistant gloves for all mixers and loaders and for applicators using hand held equipment, and
- Chemical-resistant apron for mixers, loaders and other handlers exposed to the concentrate.

#### **User Safety Requirements**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

#### **USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco, or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

# **Engineering Controls**

When handlers use enclosed cabs in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4-6)), the handler PPE requirements may be reduced or modified as specified in the WPS.

#### **ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. Runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. Do not contaminate water by disposing of equipment washwater.

#### **DIRECTIONS FOR USE**

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

#### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), notification to workers, and restricted-entry interval. The requirements in this box apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the following restricted entry intervals (REI):

Check the Application Directions table for the correct REI for each crop. If the table does not list an REI for a particular crop, the REI is 12 hours.

PPE required for early entry to treated areas (that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water), is:

- Coveralls over long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure

#### PRODUCT INFORMATION

Apply this product with ground or aerial equipment, using sufficient volume of spray to provide thorough coverage. Continuous agitation is required to keep the material in suspension. Do not tank mix this product with highly alkaline pesticides, such as Bordeaux mixture or lime sulfur. No claim of compatibility with other pesticides is implied. Use the higher rates under conditions of severe disease pressure. Also, see local State Extension Service instructions for application schedules.

Optimum disease control occurs when fungicides are applied in a preventative spray program prior to fungal infection. Some diseases are better controlled when several different MOA (Modes of Action) fungicides are tank-mixed for the application. Check your area University or Extension Recommendations Guide for specifics.

Use the fluid oz./acre rate for concentrate sprays (less than 400 gallons on apples, less than 300 gallons on stonefruit). Use the fluid oz./100 gal rate for dilute ground applications. For aerial applications, use a minimum of 3 gallons/A (5 gallons/A in California) for row crops, and a minimum of 10 gallons/A for tree crops. Higher spray volume will generally result in better coverage and better disease control.

**Use on non-bearing apples, pecans, cherries, and peaches:** Use this product for control of the leaf diseases listed on the label for these crops during the non-bearing years of new plantings, and on nursery stock. All use directions and limitations must be followed, except for the PHI, which is not applicable. Begin applications as disease is first observed. Tank mix with a protectant fungicide for resistance management.

Chemigation instructions follow. Do not apply through any irrigation system unless these instructions are followed.

Resistance Management: To avoid the development of tolerant or resistant strains of fungi, tank mix this product with a fungicide of different chemistry, and/or alternated with a fungicide of different chemistry at each application. If after using this product as specified in this label, the treatment is not effective, a tolerant or resistant strain of fungi is likely present. Discontinue the use of this product for at least one season. Do not use products containing thiabendazole or other products containing thiophanate-methyl as substitutes for this product, as they are of similar chemistry and will contribute to the development of resistance. As long as these precautions are followed, this product can be useful for disease control, even if resistant strains are present.

#### **MIXING INSTRUCTIONS**

Always start with a thoroughly clean spray tank and spray system before using this product.

Fill spray tank to half full, start agitation. Be sure to shake product container well before pouring to measure. Slowly pour required amount into spray tank, then finish filling tank with water, all the while maintaining agitation.

Tank mix this product with other pesticides to broaden spectrum of control. Using instructions above, add products in order of formulation type: dry flowables (DF), wettable powders (WP), and wettable dry granules (WDG) should be added first; then flowables (F and SC); then emulsifiable concentrates (EC) last. As each product is added to the tank, be sure it is completely dispersed before adding any other product to the mix. Maintain agitation throughout mixing and application processes.

If there is any question as to the compatibility of the components, always perform a jar test with proportional amount of each product, using water from the actual use source.

Always read and follow label direction of all products. The most restrictive label language will apply. Do not mix more spray solution than you plan to apply that day.

	1	e: Dilute sprays are not to	1		
CROP	DISEASES	SCIENTIFIC NAME	FLUID OZ./ACRE (LB AI/ACRE)	FLUID OZ./ 100 GAL	USE INFORMATIONAPPLICATIO INSTRUCTIONS
lmonds	Brown rot	Monilinia sp.	20 - 30		Apply at pink bud and petal fall
	Blossom blight	Monilinia sp.	(0.7 - 1.05 lb ai/A)		
	Scab	Cladosporium sp.			
	Jacket Rot	Monilinia, Sclerotinia, Botrytis			
	Leaf Blight	Seimatosporium			
	NOTES Restriction	s:			
		<u>-</u>	-	-	interval (REI) of 3 days.
	1 '''	han 60 fl. oz. of product	(2.1 lb ai) per acre p	oer year.	
	Pre-harvest Interval				
apples	Apple scab	Venturia sp.	15 - 20 (0.53 - 0.7 lb ai/A)	3.75 – 5	Apply at 5- to 10-day intervals from green tip through petal fa
	Black pox * Flyspeck	Helminthosporium papulosum	(except CA)		continue at 7- to 14-day interval in cover sprays.
	Powdery mildew	Zygophiala sp.	CA only:	CA only:	Follow resistance managemen
Soot	Sooty blotch	Podosphaera sp.	30 (1.0 lb. ai/A)	7.5	guidelines under Directions Fo Use.
		Gloeodes sp.	(1.0 lb ai/A)		USE.
	Black rot	Botryosphaeria sp.			
	Brooks fruit spot	Mycosphaerella sp.			
	White rot *				
	PRE-HARVEST USE TO	<i>Botryosphaeria</i> sp. DCONTROL POST-HARVES	I T DISEASES ON APPL	ES	
	Storage rot blue mold	Penicillium expansum	1 (0.035 lb ai/A)	3.75 - 5	Apply as a pre-harvest spray within 2 weeks to 3 days of
	Gray mold	Botrytis cinerea			harvest.
	Bull's eye rot	Neofabraea spp.			Thorough coverage of the fruit required. Application closer to harvest may provide better efficacy.
					For resistance management, do not use a benzimidazole fungicide (i.e. Mertect®) post-harvest following a pre-harvest application of a product containing thiophanate-methyle
					Application of a non- benzimidazole post-harvest fungicide will provide additional protection from post-harvest diseases.

\* Not registered for use in California

	Note:	Dilute sprays are not to	o exceed maximum	rate per acre.	
CROP	DISEASES	SCIENTIFIC NAME	FLUID OZ./ACRE (LB AI/ACRE)	FLUID OZ./ 100 GAL	USE INFORMATION INSTRUCTIONS
Beans, Dry and Succulent Including: Lima bean Snap bean Kidney bean Mung bean Navy bean Pinto bean Wax bean Broad bean Fava bean Asparagus bean Blackeyed pea Cowpea Sweet lupine	Gray mold White mold Anthracnose	Botrytis sp. Sclerotinia sp. Colletotrichum	(LB Al/ACRE) 30 - 40 (1.0 - 1.4 lb ai/A) 20 - 30 (0.7 - 1.0 lbs ai/A)		For one application: Apply when 100% of plants have at least one open bloom or when conditions are favorable for disease development.  For multiple applications: Make first application when 10% 30% of plants have at least one open bloom. Follow with additional applications at 4- to 7-day intervals. Apply prio to the development of disease follows:
White lupine White Sweet lupine Grain lupine Chick pea Garbanzo bean	(REI) of 24 hours. For dry beans, do not 3 days. Do not apply more the Pre-harvest Interval – All States Except Ca	do not enter or allow vertenter or allow worker an 80 fl. oz. of product alifornia:	entry into treated ar  (2.8 lb ai) per acre s for succulent bean s for dry beans eans	reas during the	
Cucurbits  Cantaloupe, Casaba, Cucumbers, Melons, Pumpkins, Summer and winter squash, Watermelons	Acrermonium/ Cephalosporium Hypocotyl rot		10 (0.35 lb ai/A)		Apply in-furrow, on top of the seeds at planting. Do not use less than 10 gallons of water per acre.
	Anthracnose * Gummy stem blight* Powdery mildew Target spot *	Colletotrichum sp. Didymella sp. Erysiphe sp., Sphaerotheca sp. Corynespora sp.	10 (0.35 lb ai/A) for ground or aerial applications		Begin applications when plants begin to run or when disease firs appears, and repeat at 7- to 14-day intervals or as needed.  For Target spot, use at 7-day intervals as needed.
	Belly rots *	Rhizoctonia/ Fusarium sp.	10 (0.35 lb ai/A)		Apply in sufficient volume to allow runoff to the soil. Will not control <i>Pythium</i> or <i>Phytophthora</i>

APPLICATION DIRECTIONS TABLE						
		Dilute sprays are not to				
CROP	DISEASES	SCIENTIFIC NAME	FLUID OZ./ACRE (LB AI/ACRE)	FLUID OZ./ 100 GAL	USE INFORMATIONAPPLICATION INSTRUCTIONS	
	Suppression of Vine decline	Monosporascus cannonballus	10 (0.35 lb ai/A)		Apply through buried drip irrigation (chemigation) to the root zone. For disease	
	Charcoal rot	Macrophomina sp.			suppression, apply at 14-day intervals, beginning at emergence and continuing to harvest.	
					Applications weekly or biweekly, beginning 4-6 weeks prior to harvest will also offer suppression, but may not be as effective as a season-long program.	
	NOTES Restrictions:					
			-	-	interval (REI) of 24 hours.	
	timings.		1 lb ai) per acre per	season from a	any combination of application	
	Pre-harvest Interval:	•	adau Dinastiana fau l	laa		
		nagement guidelines ui	ider Directions for t	use.		
Garlic	* Not registered for a Penicillium clove rot	use in California		20	Completely immerse garlic	
(Treatment for garlic cloves prior	T emailiant clove for			20	cloves in suspension for at least 5 minutes.	
to planting)					Continuously agitate the solution tank by hydraulic or mechanical means.	
					After treatment, remove cloves from solution and drain over sand.	
	White set	Sclerotium	4.51 /4000 5		Dry cloves after treatment and prior to planting.	
Onions * Garlic (in-furrow)	White rot	cepivorum	1 fl. oz./1000 ft. of row (with 12 inch row spacing) OR		Apply this product by spraying directly into the open furrow at the time of planting seed, sets or bulbs. Not for this use through any type of irrigation system.	
			40 fl. oz. (1.4 lb ai) per acre broadcast			
	NOTES Restrictions:	:				
	Do not apply more that	an 40 fl. oz. of produc	t (1.4 lb ai) per acre	per year.		
	*Not registered for t	use in California				
Peanuts	Early Leaf spot	Cercospora spp.	10 (0.35 lb ci/A)		Begin applications 35 days after	
	Late Leaf Spot	Cercosporidium spp.	(0.35 lb ai/A)		planting or when disease first appears and repeat at 14-day intervals as needed.	
	Rust	Puccinia			Do not use this product alone.	
	Limb rot Web blotch	Rhizoctonia Ascochyta			Use only in combination with another non-benzimidazole fungicide.	
		,			Follow resistance management guidelines under Directions for Use.	

		APPLICATION D			
CROP	DISEASES	SCIENTIFIC NAME	FLUID OZ./ACRE (LB AI/ACRE)	FLUID OZ./ 100 GAL	USE INFORMATION INSTRUCTIONS
		w worker entry into treat han 40 fl. oz of product	•		y interval (REI) of 1 day.
Pecans	Scab Brown spot Downy spot Powdery mildew Liver spot Stem End blight Zonate leaf spot	Fusicladium sp. Cercospora sp. Mycosphaerella sp. Microsphaera sp. Gnomonia sp. Botryosphaeria sp. Cristulariella sp.	20 (0.7 lb ai/A)		Begin applications when first leaves are showing and repeat a 3- to 4-week intervals until shuck split.  Do not apply after shuck split.
		w worker entry into treat han 60 fl. oz. of product	-		y interval (REI) of 3 days.
Pistachios	Shoot blight	Botrytis sp., Botryosphaeria sp.	30 - 40 (1.0 - 1.4 lb ai/A)		Apply at bloom.  Apply in a minimum of 100 gallons per acre by ground or 20 gallons per acre by air.  For aerial application, fly over every row or center.
		<del></del>	-		y interval (REI) of 3 days.
Potatoes	White mold	Sclerotinia sclerotiorum	20 - 30 (0.7 - 1.0 lb ai/A)		Make first application just prior to row closure to full bloom of the primary flower clusters (prior to petal drop). Repeat the application within 7-14 days and at 7- to 14-day intervals if conditions for disease development are favorable.  Thorough coverage of the lower stems and branches is essential for disease control.
					Use a minimum of 6 gallons/Acro for aerial application. Apply prior to disease
					development for best results.  May be tank mixed with other fungicides labeled for early and late blight control.
		w worker entry into treat han 80 fl. oz. of product	-		y interval (REI) of 2 days.

	Note:	Dilute sprays are not to	o exceed maximum	rate per acre.		
CROP	DISEASES	SCIENTIFIC NAME	FLUID OZ./ACRE (LB AI/ACRE)	FLUID OZ./ 100 GAL	USE INFORMATION INSTRUCTIONS	
Soybeans	Anthracnose Brown spot Frogeye leaf spot Pod and stem blight Purple seed stain	Colletotrichum sp. Septoria sp. Cercospora sojina Diaporthe sp. and the imperfect stage, Phomopsis sp. Cercospora kikuchii	10 - 20 (0.35 - 0.7 lb ai/A)		Apply from full bloom to when pods are 1/8" to ¼" in length. Make a second application 14 to 21 days later. Do not make the second application later than 14 days after pods average ¼" in length or when beans form in the pod. Use the high rate under severe disease pressure.  For Seed Beans Only - For seed quality, make a single application at the high rate when beans form in the pod.	
	White mold	Sclerotinia sp.	15 - 20 (0.53 - 0.7 lb ai/A)		Make one application at early bloom (R-1 to R-2 stage) followed by a second application 7-14 days later if conditions are favorable for continued disease pressure. Use a minimum of 5 gallons by air.	
	Aerial blight (suppression) Soybean rust	Rhizoctonia solani Phakopsora pachyrhiza	20 (0.7 lb ai/A)		Make initial application when disease threatens (before visual symptoms appear) and repeat 14-21 days later if needed. Tank mix with a DMI fungicide for soybean rust.	
Stone Fruit	NOTESRestrictions:  Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 24 hours.  Do not apply more than 40 fl. oz. (1.4 lb ai/A) per acre per season.  Do not make more than 2 applications per year.  Do not graze or feed treated vines to livestock.  Pre-harvest interval: 21 days					
Apricots	Brown rot Blossom blight Fruit brown rot	Monilinia sp. Monilinia sp. Monilinia sp.	20 - 30 (0.7 - 1.0 lb ai/A) (In CA - use 30 fl. oz. or 1.0 lb ai/A)	6.7 - 10	Apply at early bloom (red bud). Make a second application at ful bloom.  If needed under severe disease pressure, apply additional sprays at 10- to 14-day intervals between full bloom and final preharvest sprays.	
	Do not apply more the Pre-harvest interval:	worker entry into treat an 80 fl. oz. of product	(2.8 lb ai) per acre p	oer season.	y interval (REI) of 2 days.	

CROP	DISEASES	SCIENTIFIC NAME	FLUID	FLUID OZ./	USE		
			OZ./ACRE (LB AI/ACRE)	100 GAL	INFORMATION APPLICATIONS		
Cherries Sweet and Sour	Brown rot Blossom blight	Monilinia sp.  Monilinia sp.	20 - 30 (0.7 - 1.0 lb ai/A)	6.7 - 10	Apply at early bloom (early popcorn). Make a second application at full bloom.		
	Fruit brown rot	<i>Monilinia</i> sp.	(In CA - use 30 fl. oz. or 1.0 lb ai/A)		If needed under severe disea pressure, apply additional spl at 10- to 14- day intervals between full bloom and final pharvest sprays.		
	Cherry leaf spot	Coccomyces sp.	22.5 - 30 (0.79 - 1.0 lb ai/A)	7.5 - 10	Apply at petal fall or before w leaves first unfold, and at firs second and third cover spray 10- to 14-day intervals and or spray 14 to 21 days after har		
	Powdery mildew	Podosphaera sp., Sphaerotheca sp.	20-30 (0.7-1.0 lb ai/A) (In CA - use 30 fl. oz. or 1.0 lb ai/A)	6.7 - 10	Apply at early bloom (early popcorn). Make a second application at full bloom.		
			PLUS	PLUS	PLUS		
			22.5 - 30 fl. oz. (0.79 -1.0 lb ai/A)	7.5 – 10	Apply at shuck fall and first cover.		
	NOTESRestrictions:  Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 2 days.  Do not apply more than 80 fl. oz. of product (2.8 lb ai) per acre per season.  Pre-harvest interval: 1 day  Follow resistance management guidelines under Directions for Use.						
Nectarines	Brown rot Blossom blight Fruit brown rot	Monilinia sp.  Monilinia sp.  Monilinia sp.	20 - 30 (0.7 - 1.0 lb ai/A) (In CA - use 30 fl. oz. or 1.0 lb ai/A)	6.7 - 10	Apply at early bloom (pink bu Make a second application at bloom if conditions favor dise development.  If needed under severe disea pressure apply additional sprat 10- to 14-day intervals between full bloom and final pharvest sprays.		
		w worker entry into treat han 80 fl. oz. of product : 1 day	(2.8 lb ai) per acre p	_	v interval (REI) of 2 days.		

CROP	DISEASES	SCIENTIFIC NAME	FLUID OZ./ACRE (LB AI/ACRE)	FLUID OZ./ 100 GAL	USE INFORMATIONAPPLICATI INSTRUCTIONS
Peaches	Brown rot Brown blight Fruit brown rot	Monilinia sp.  Monilinia sp.  Monilinia sp.	20 - 30 (0.7 - 1.0 lb ai/A) (In CA - use 30 fl. oz. or	6.7 - 10	Apply at early bloom (pink but Make a second application at bloom if conditions favor disease) development.
			1.0 lb ai/A)		If needed under severe disease pressure, apply additional spr at 10- to 14-day intervals between full bloom and final pharvest sprays.
	Peach scab	Cladosporium sp.	20 - 30 (0.7 - 1.0 lb ai/A) (In CA - use 30 fl. oz. or 1.0 lb ai/A)	6.7 - 10	Apply at early bloom (pink but Make a second application at bloom if conditions favor diseadevelopment.
			PLUS	PLUS	PLUS
			22.5 - 30 (0.79 - 1.0 lb ai/A)	7.5 - 10	Apply at shuck split and at firs cover sprays.
	Do not apply more Pre-harvest interva	than 80 fl. oz. of producal: 1 day	ct (2.8 lb ai) per acre	per season.	y interval (REI) of 2 days.
Plums and	Do not apply more Pre-harvest interva	than 80 fl. oz. of produc	ct (2.8 lb ai) per acre	per season.	
Plums and Prunes	Do not apply more Pre-harvest interva Follow resistance r Brown rot Blossom blight	than 80 fl. oz. of productal: 1 day management guidelines Monilinia sp. Monilinia sp.	under Directions for 20 - 30 (0.7 - 1.0 lb ai/A)	per season. Use.	Apply at early bloom (green ti Make a second application at bloom. If needed under sever
	Do not apply more Pre-harvest interva Follow resistance r Brown rot	than 80 fl. oz. of productal: 1 day management guidelines <i>Monilinia</i> sp.	under Directions for 20 - 30 (0.7 - 1.0 lb ai/A)	per season. Use.	Apply at early bloom (green ti Make a second application at bloom. If needed under sever disease pressure, apply additional sprays at 10- to 14-
	Do not apply more Pre-harvest interva Follow resistance r Brown rot Blossom blight	than 80 fl. oz. of productal: 1 day management guidelines Monilinia sp. Monilinia sp.	under Directions for 20 - 30 (0.7 - 1.0 lb ai/A) (In CA - use 30 fl. oz. or	per season. Use.	Apply at early bloom (green ti Make a second application at bloom. If needed under sever disease pressure, apply additional sprays at 10- to 14- intervals after full bloom. Do r apply after shuck split. Apply at pre-bloom and petal
	Do not apply more Pre-harvest interval Follow resistance r Brown rot Blossom blight Fruit brown rot	than 80 fl. oz. of productal: 1 day management guidelines Monilinia sp. Monilinia sp. Monilinia sp.	under Directions for 20 - 30 (0.7 - 1.0 lb ai/A) (In CA - use 30 fl. oz. or 1.0 lb ai/A)	use. 6.7 - 10	Apply at early bloom (green ti Make a second application at bloom. If needed under sever disease pressure, apply additional sprays at 10- to 14- intervals after full bloom. Do r apply after shuck split. Apply at pre-bloom and petal
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	Do not apply more Pre-harvest interval Follow resistance r Brown rot Blossom blight Fruit brown rot  Black knot	than 80 fl. oz. of productal: 1 day management guidelines  Monilinia sp.  Monilinia sp.  Monilinia sp.  Dibotryon sp.	under Directions for 20 - 30 (0.7 - 1.0 lb ai/A)  (In CA - use 30 fl. oz. or 1.0 lb ai/A)  (20 - 30 (0.7 - 1.0 lb ai/A)  (In CA - use 30 fl. oz. or 1.0 lb ai/A)  (In CA - use 30 fl. oz. or 1.0 lb ai/A)	Use. 6.7 - 10	Apply at early bloom (green ti Make a second application at bloom. If needed under sever disease pressure, apply additional sprays at 10- to 14- intervals after full bloom. Do n

	APPLICATION DIRECTIONS TABLE						
	Note:	Dilute sprays are not to	o exceed maximum	rate per acre.			
CROP	DISEASES	SCIENTIFIC NAME	FLUID OZ./ACRE (LB AI/ACRE)	FLUID OZ./ 100 GAL	USE INFORMATION INSTRUCTIONS		
Strawberries	Fruit rot Leaf blight Leaf scorch Powdery mildew	Botrytis sp. Dendrophoma sp. Diplocarpon sp. Sphaerotheca sp.	15 - 20 (0.53 - 0.7 lb ai/A)		Begin application at early bloom and continue at 7- to 10-day intervals. Use the higher rate East of the Rocky Mountains and under conditions of severe disease pressure.		
	Crown rot * (Suppression only)	Collelotrichum spp.	15 - 20 (0.53 - 0.7 lb ai/A)		Begin applications after establishment of the transplants and continue through bloom at 10- to 14-day intervals. Use the high rate if the fields have a history of <i>Colletotrichum</i> crown rot and/or conditions are favorable for disease development. Will not control <i>Phytophthora</i> species.		
	NOTESRestrictions	<u>.</u>	I.				
	Do not apply more th	an 80 fl. oz. product (2 worker entry into treate		-	y interval (REI) of 24 hours.		
	* Not registered for	use in California					
Sugarbeets	Cercospora leaf spot	Cercospora sp.	10 - 20 (0.35 - 0.7 lb ai/A) (In CA - use 10 fl. oz. or 0.35 lb ai/A)		Apply when conditions become favorable for disease development before the disease appears and follow with a nonbenzimidazole fungicide within 14 days of application or as needed.  This product should be tank mixed with a protectant fungicide such as Agri Tin® when resistant strains of <i>Cercospora</i> are present in the field.  For areas east of the Rocky Mountains: Do not make more		
					than one application of this product per season for Cercospora leaf spot.		
	Powdery mildew	Erysiphe sp.	10 - 20 (0.35 - 0.7 lb ai/A)		Apply as soon as disease symptoms appear and follow with a non-benzimidazole fungicide at 14-day intervals or as needed.		
	NOTES Restrictions	:					
	Do not enter or allow	worker entry into treate	ed areas during the	restricted entr	y interval (REI) of 1 day.		
	1 1 1	an 60 fl. oz. product (2	.1 lb ai) per acre pei	season.			
	Pre-harvest interval:				T		
Triticale and Fall-Seeded Wheat	Strawbreaker (Foot rot or Eye spot)	Pseudocercosporella sp.	20 (0.7 lb ai/A)		Apply this product at the rate indicated in a single application by air or ground after tillering but before stem elongation has begun.		
and Washington Only					Use sufficient water to obtain thorough coverage.		

APPLICATION DIRECTIONS TABLE  Note: Dilute sprays are not to exceed maximum rate per acre.							
CROP	DISEASES	SCIENTIFIC NAME	FLUID OZ./ACRE (LB AI/ACRE)	FLUID OZ./ 100 GAL	USE INFORMATION INSTRUCTIONS		
	NOTESRestrictions:						
	NOTES RESUICIONS	S:					
		-	ed areas during the	restricted entry	y interval (REI) of 24 hours.		
	Do not enter or allow	-	9	-	y interval (REI) of 24 hours.		
	Do not enter or allow Do not apply more th	worker entry into treate	(0.7 lb ai) per acre	-	y interval (REI) of 24 hours.		
	Do not enter or allow Do not apply more the Do not make more the	worker entry into treate nan 20 fl. oz. of product	(0.7 lb ai) per acre season.	-	y interval (REI) of 24 hours.		
	Do not enter or allow Do not apply more th Do not make more th Do not cut for hay wi	worker entry into treate nan 20 fl. oz. of product nan one application per	(0.7 lb ai) per acre season.	-	y interval (REI) of 24 hours.		

Note: Dilute sprays are not to exceed maximum rate per acre-

# FOR USE ON CONIFERS

(Not for use in California)

CROP	DISEASES	RATE of PRODUCT & MINIMUM GALLONAGE	REMARKS APPLICATION INSTRUCTIONS
Conifers (Pine) Austrian Red Scots Christmas Trees	Tip blight (Diplodia)	20 fl. oz. /A per 100 gal./A Spray Volume	Apply at bud break. Repeat 10 to 14 days later, just before needles emerge from sheath; repeat again 10 to 14 days after needle emergence.  Do not apply more than 60 fl. oz. of product (2.1 lb ai) / Acre / year.
(Fir) Douglas	Swiss needle cast ( <i>Phaecryptopus</i> ) Rhabdocline Needle cast	20 fl. oz./A per 50 gal./A Spray Volume	Apply initially in early May. Repeat at 4-week intervals.  Do not apply more than 100 fl. oz. of product (3.5 lb ai) / Acre / year.

### Notes:

Add a spreader/sticker to improve coverage.

Use minimum gallonage with mist-blower types of sprayers and higher gallonage with conventional sprayers.

## **Restrictions:**

Do not graze livestock in treated areas.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

CONIFERS (Seedling treatment) Longleaf	Brown needle blight (Scirrhia)	1.25 fl. oz. per 9.5 oz. of dry Kaolinite clay for seedling roots	Wet seedling roots in clean water, then apply the product / kaolinite mixture to wet roots.
Loblolly Longleaf Slash	Fusarium and Rhizoctonia root rot	2.5 fl. oz. per 50 oz. Kaolinite clay plus enough water to make a slurry	Thoroughly cover seedlings roots with the product /kaolinite slurry.

#### Notes:

Do not apply mixture to seedling foliage.

During treatment, avoid excessive drying of roots or exposure to temperatures greater than 90° F or less than 32°F.

This product does not control Pythium or Phytophthora.

#### **Restriction:**

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

#### DIRECTIONS FOR USE THROUGH CHEMIGATION SYSTEMS

# USE IN CALIFORNIA BY CHEMIGATION ONLY FOR BEANS, CUCURBITS (CUCUMBERS, MELONS, PUMPKINS, SQUASH), PEANUTS, SOYBEANS, AND STRAWBERRIES

#### **Chemigation Information**

Apply this product only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move, or drip (mini-micro sprinklers, strip tubing, trickle) irrigation systems. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Do not connect chemigation system to any public water system. Public water system means a system for the provision of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

# **System Requirements**

System utilizing a pressurized water and pesticide injection system must meet the following requirements:

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

System must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

#### **Application Instructions**

Observe the requirements in the System Requirements section above.

Apply this product only through systems containing anti-siphon and check valves designed to prevent water source contamination or overflow of the mix tank and containing interlocking controls between the metering device and the water pump to ensure simultaneous shut-off.

Maintain a gentle continuous agitation in mix tank during mixing and application to assure a uniform suspension.

Greater accuracy in calibration and distribution will be achieved by injecting a larger volume of a more dilute suspension per unit time.

Application of more than specified quantities of irrigation water per acre will decrease product performance.

Do not apply when wind speed favors drift, when system connections or fittings leak, when nozzles do not provide uniform distribution or when lines containing the product cannot be flushed and must be dismantled and drained. In a center pivot system, block the nozzle set nearest the well/pivot/injection unit to prevent spray being applied to this area.

Allow sufficient time for pesticide to be flushed through all lines and all nozzles before turning off irrigation water.

Apply this product in conjunction with chemically neutral liquid fertilizers. Application in conjunction with highly alkaline fertilizers, such as aqueous ammonia, causes a degradation of the pesticide, resulting in reduced performance and should be avoided.

#### **Spray Preparation**

Remove scale, pesticide residues, and other foreign matter from the chemical tank and entire injector system. Flush with clean water.

Prepare a suspension of this product in a mix tank. Fill the tank with ½ or ¾ the desired amount of water. Start mechanical or hydraulic agitation. Slowly add the required amount of this product and then the remaining volume of water.

# Sprinkler Irrigation - Notes:

Observe all System Requirements and application instructions above.

Set sprinkler system to deliver 0.1 to 0.25 inches of water per acre. Volume of water higher than this reduces efficacy. Start sprinkler and then uniformly inject the suspension of this product into the irrigation water line so as to deliver the desired rate per acre. Inject the suspension of this product with a positive displacement pump into the main line ahead of a right angle turn to ensure adequate mixing. When treatment with this product has been completed, do not irrigate the treated area for 24 to 48 hours to prevent washing the chemical off the crop.

Do not apply when wind speed favors drift beyond the area intended for treatment. Where sprinkler distribution patterns do not overlap sufficiently, unacceptable disease control is a result.

Check local restrictions and requirements regarding sprinkler irrigation application, as they vary from state to state.

# Drip (mini-micro Sprinklers, Strip Tubing, Trickle) Irrigation-Notes:

Observe all system requirements and application instructions above. Use a pesticide supply tank.

#### STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal.

**PESTICIDE STORAGE:** Store in original container in a dry, temperature controlled, secure place.

**PESTICIDE DISPOSAL:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be used according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

#### **CONTAINER HANDLING:**

[Note to Reviewer: The following statement will be included on all Final Printed Labels bearing multiple Container Handling statements] "NOTE: This product is available in multiple containers. Refer to the Net Contents section of this product's labeling for the applicable "Nonrefillable" or "Refillable" designation. Follow the container handling instructions below that apply to your container type / size."]

#### [Nonrefillable Containers 5 Gallons or Less]

Nonrefillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

#### [Nonrefillable containers larger than 5 gallons]

Nonrefillable container. Do not reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying. **Triple rinse as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. **Pressure rinse as follows:** Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure-rinsing nozzle in the side of the container, and rinse at about 40 psi for at least 30 seconds. Drain for 10 seconds after the flow begins to drip. Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or by other procedures approved by State and local authorities. Plastic containers are also disposable by incineration, or, if allowed by State and local authorities, by burning. If burned stay out of smoke.

# [Refillable containers]

Refillable container. Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or a mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for two minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### WARRANTY DISCLAIMER

The directions for use of this product must be followed carefully. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, (1) THE GOODS DELIVERED TO YOU ARE FURNISHED "AS IS" BY MANUFACTURER OR SELLER AND (2) MANUFACTURER AND SELLER MAKE NO WARRANTIES, GUARANTEES, OR REPRESENTATIONS OF ANY KIND TO BUYER OR USER, EITHER EXPRESS OR IMPLIED, OR BY USAGE OF TRADE, STATUTORY OR OTHERWISE, WITH REGARD TO THE PRODUCT SOLD, INCLUDING, BUT NOT LIMITED TO MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, USE, OR ELIGIBILITY OF THE PRODUCT FOR ANY PARTICULAR TRADE USAGE. UNINTENDED CONSEQUENCES, INCLUDING BUT NOT LIMITED TO INEFFECTIVENESS, MAY RESULT BECAUSE OF SUCH FACTORS AS THE PRESENCE OR ABSENCE OF OTHER MATERIALS USED IN COMBINATION WITH THE GOODS, OR THE MANNER OF USE OR APPLICATION, INCLUDING WEATHER, ALL OF WHICH ARE BEYOND THE CONTROL OF MANUFACTURER OR SELLER AND ASSUMED BY BUYER OR USER. THIS WRITING CONTAINS ALL OF THE REPRESENTATIONS AND AGREEMENTS BETWEEN BUYER, MANUFACTURER AND SELLER, AND NO PERSON OR AGENT OF MANUFACTURER OR SELLER HAS ANY AUTHORITY TO MAKE ANY REPRESENTATION OR WARRANTY OR AGREEMENT RELATING IN ANY WAY TO THESE GOODS.

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